A B S T R A C T

A modified polyvinyl alcohol (PVA) protected with a protecting group of the present invention is one wherein an amount of high-molecular weight body components of the modified polyvinyl alcohol having a weight-average molecular weight of 250,000 or more as determined by polyethylene glycol standards according to a gel permeation chromatography is 1000 ppm or less in the modified polyvinyl alcohol. The modified PVA is prepared by removing a metal ion and an acid from the modified PVA such as acetalized PVA with ion exchange treatment and then heat-treating at 80°C or higher. An auxiliary for fine pattern formation of the present invention comprises the aforementioned modified PVA, a water-soluble crosslinking agent, and water or a mixed solvent of water and a water-soluble organic solvent. The auxiliary for fine pattern formation is applied over a resist pattern 3 and a coated layer 4 is formed thereon. Then the resist pattern 3 and the coated layer 4 are heated and thereby an acid is diffused from the resist pattern 3 to the coated layer 4. As a result, the coated layer in the vicinity of the resist pattern surface is crosslinked and cured by the diffused acid. The coated layer is developed to form a hole pattern having crosslinked and cured layer on the resist pattern, of which the hole size is less than a limit resolution of the wavelength of a light-exposure and which have no development defects.